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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/163,778	09/30/1998	ALLAN LEPINE	IAM498PA	5876

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EXAMINER
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SAYALA, CHRAYA D

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/163,778

Applicant(s)

LEPINE, ALLAN

Examiner

C. SAYALA

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102/ 35 USC § 103***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 7-9, and 11-12 are rejected under 35 U.S.C. § 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over the admitted Prior Art.

The specification discloses that naturally occurring beagle milk contains various components, including 40.40% protein, 31.8% fat, 18.5% carbohydrate, and a casein/whey ratio of 70:30 (Specification, page 5, lines 21-26). The specification also admits that it is "generally accepted that milk from the lactating mother provides optimal nutrition to the suckling puppy. Accordingly, milk replacers currently in use have been

formulated with the intent of matching the nutrient composition of bitch milk." (Id., page 1, lines 8-11).

Naturally occurring canine milk contains all of the elements of instant claim 1. Even though applicant has added the limitation that the composition is artificially produced canine milk, it is noted that the both the milk and the substitute have the same utility and the same ingredients, and every composition is necessarily a combination of elements, and to that extent is artificially produced or synthesized. Furthermore, the limitation "the composition is an artificially produced canine milk substitute", adds little to the composition itself in order to distinguish it from the prior art because, again, the composition is the same and the utility is the same. The limitation is written in a product-by-process format and as such, it is the novelty of the instantly claimed product that need be established and not the way it was made. In re Brown, 173 USPQ 685 (CCPA 1972); In re Wertheim, 191 USPQ (CCPA 1976).

In the alternative, given the known desired formulation of milk replacers to closely match the nutrient composition of canine milk, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate a milk replacer with the composition of claim 1 to match the components of the natural beagle milk. See PTO-form 892 and the references applied herein that already establishes that to manufacture milk replacers that are similar or come close to the natural product was known in the art at the time the invention was made, and the knowledge to analyze and combine such ingredients to make a synthetic product was available at the time the invention was made.

Claims 3-5 are similarly clearly anticipated and/or obvious within the meaning of 35 U.S.C. § 102 (b) and/or 103 (a) as follows:

Instant claim 3 recites "about 38% protein". Natural beagle milk contains 40.40% protein (Specification, page 5, lines 21-26), which clearly anticipates a composition containing "about 38%" protein. In the alternative, it would have been obvious to formulate a canine milk replacer which contains about 38% protein, as it was known to formulate milk replacers to match the content of natural milk.

Instant claim 4 recites "about 28% fat". Natural beagle milk contains 31.8% fat (Specification, page 5, lines 21-26), which clearly anticipates a composition containing "about 28%" fat. In the alternative, it would have been obvious to formulate a canine milk replacer which contains about 28% fat, as it is known to formulate milk replacers to match the content of natural milk.

Instant claim 5 recites "about 19% carbohydrates". Natural beagle milk contains 18.5% carbohydrates (Specification, page 5, lines 21-26), which clearly anticipates a composition containing "about 19%" carbohydrates. In the alternative, it would have been obvious to formulate a canine milk replacer which contains about 19% carbohydrates, as it was known to formulate milk replacers to match the content of natural milk.

***Claim Rejections - 35 USC § 103***

4. Claims 7, 8, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art.

Instant claim 7 recites 15-19% palmitic acid, about 5-9% stearic acid, about 34-38% oleic acid, about 17-21% linoleic acid, 1-4% alpha-linoleic acid, about 0.5-2.0% arachidonic acid, about 0.2-1% docosahexaenic acid, about 2-5% Omega-3 fatty acids, about 18-22% Omega-6 fatty acids, and from about 1-4% trans fatty acids.

Instant claim 8 recites about 6-10% arginine, 4-8% histidine, 8-12% isoleucine, 16-20% leucine, about 13-17% lysine, about 2-7% methionine, about 6-10% phenylalanine, about 8-12% threonine, about 1-4% tryptophan, about 9-13% valine, about 2-5% cystine, and about 2-6% tyrosine, based on the total weight of amino acids.

Instant claim 9 recites about 4-8% by weight lactose.

Instant claim 11 recites about 27-37% by weight fatty acids.

Instant claim 12 recites from about 15 to 15% by weight essential amino acids.

Although the claimed ranges are not specifically exemplified or analyzed for in the Admitted Prior Art beagle milk, the compositions of the claimed milk replacer and the prior art beagle milk are so close (and stated to be modeled upon natural beagle milk) that they are reasonably expected to behave in the same or similar manner.

Compare Titanium Metals Corp. v. Banner, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985).

Where general conditions of the appealed claim are disclosed in the prior art, it is not inventive to discover optimum or workable ranges by routine experimentation, and applicant has the burden of proving any criticality. In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 218-19 (CCPA 1980). In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235

(CCPA 1955). Applicant has not done so with the claimed compositions vis-à-vis natural beagle milk.

5. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in view of Gil et al. (US Patent 5709888).

Instant claim 6 recites that the source of fat is corn oil, canola oil, butter oil, arachidonic acid, docosahexaenoic acid, and blends thereof.

Instant claim 14 recites that the composition contains about 35-45% protein, about 25-35% fat and from about 10-25% carbohydrates, and the fat is corn oil canola oil, butter oil, arachidonic acid, docosahexaenoic acid, and blends thereof.

The admitted prior art is as discussed above. It does not disclose that the fat was obtained from the sources claimed herein. Gil teaches a preferred source of fat for a human-milk replacer includes oil, such as corn oil (see col. 10, line 64). Gil also experimentally teaches feeding weanling rats (see col. 24, line 59 etc.) from its example 13. Example 13 and example 4a contain the same fat mixtures, and example 4a is said to contain arachidonic acid and docosahexaenoic acid with beneficial effect on the rats (see col. 17, lines 40-58).

Consequently, it would have been obvious to utilize corn oil, arachidonic acid and docosahexaenoic acid as a fat source in the instantly claimed canine milk replacer of claims 6 and 14 to obtain the beneficial effects found in humans and rats.

6. Claims 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over over the Admitted Prior Art with or without Fujimori (US Patent 5294458).

Claim 10 recites that the composition contains about 0.50% by weight fructooligosaccharide.

Claim 13 recites that the composition contains about 35-45% protein, about 25-35% fat and from about 10-25% carbohydrates, further containing about 4-8% by weight lactose and 0.50% by weight fructooligosaccharide (FOS).

The Admitted Prior Art is as discussed above. The Admitted Prior Art (specification, page 7, lines 16-22) further states that 0.50% FOS is known to improve the intestinal health of "many animals". Accordingly, it would have been obvious to incorporate FOS into the claimed composition.

Alternatively, Fujimori teaches that fructooligosaccharides known to be in pet foods to reduce objectionable odors in pet wastes (see, e.g. Fujimori, col. 2, lines 45 etc.). The lactosucrose is utilized in an amount of 0.25 parts by weight (col. 6, lines 25-26). Accordingly, it would have been obvious to use the fructooligosaccharide in the canine milk replacer to obtain the known benefits.

7. Claims 1, 3-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (DE 3512705) in view of admitted Prior Art, GB 2030439 and Smirnova et al. (Voprosy Pitaniya, No. 5, pp. 36-39, 1981).



Meyer teaches a milk substitute especially for dogs that contains a fat content of more than 25%, protein content of more than 30%, a carbohydrate content of less than 25%. See pages 3-4 of the translation. The patent teaches an albumin-globulin to casein ratio (page 4, third paragraph) but does not disclose the ratio of casein to whey as claimed herein. However, the analysis of the milk of various animals was already known in the art at the time the invention was made and it was also known that of all the milk proteins, casein is much more prevalent in milk than whey proteins. Since the albumin-globulin to casein ratios are given in Meyer, based on such information to formulate and optimize amounts of casein to whey, with the knowledge that casein is more prevalent than whey would have been obvious.

The GB patent teaches a milk substitute that uses 17% casein and 6% whey (see example 1), whereas the abstract of Smirnova et al. teaches a rat milk substitute which contains 73% casein and 27% whey.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the milk substitute to closely match the natural product as given in the admitted prior art, this being the optimal diet for animals and providing motivation to do so. The secondary references establish that at the time the invention was made it was not unknown to make a milk substitute with a casein to whey ratio in the claimed range.

### ***Response to Arguments***

8. Applicant's arguments filed 8/22/03 have been fully considered but they are not persuasive.

Applicant has argued that the new limitation "artificially produced canine milk substitutes" in the body of the claim, should render the claims patentable over the natural beagle milk. The terms "artificially produced" relate to how the composition was produced and not to the composition itself. The composition remains the same as the natural milk of the beagle. It is used for the same purpose. The analysis of the milk was known and applicant has replicated it by combining the ingredients. In this sense, every composition is artificially produced or it is synthesized. In applicant's case, he synthesized a composition already old and known.

At page 6 of his arguments, applicant states that Fujimori "does not even disclose a canine milk substitute". Applicant is reminded that the Fujimori reference was used to show the benefits of using fructooligosaccharide and why one of ordinary skill in the art would have considered such an addition of this complex sugar to milk substitutes, beneficial. In this regard see PTO-form 892, which shows that Brog had already used such a sugar for the same reason in imitation milk compositions at the time the invention was made. Therefore, the use of such a sugar was already known to the skilled person for the very same purpose it has been applied in this rejection.

With regard to the Meyer reference, applicant's remarks have been carefully considered, but the fact remains that when one of ordinary skill in the art knows the formulation of the milk of any animal, to replicate it as closely as possible knowing that such a replication would provide the best possible nutrients to the animal, would be all

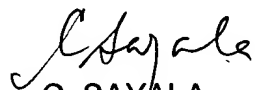
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the motivation that is required to optimize the proteins, whey and casein, to the same amounts as in natural dog milk.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
C. SAYALA  
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Group 1700.